Moving Forward With Water Quality Data Elements

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Biographical Sketches of Authors

Charlie Peters manages the Multidisciplinary Water-Quality Assessment team in the USGS, Wisconsin District office, acts as the study unit chief for the Western Lake Michigan Drainages NAWQA study, and as co-chair of the National Methods and Data Comparability Board. Chuck Job serves as Chief, Infrastructure Branch, Drinking Water Protection Division, Office of Ground Water and Drinking Water, USEPA, with responsibility for OGWDW information systems. He has previously served the NWQMC as chair of the Water Quality Data Elements Committee which developed the "Data Elements for Reporting Water Quality Results".Glenn is Staff Assistant to the Associate Director for Water at the USGS in Reston, Virginia and is co-chair of the WQDE implementation work group. LeAnne is an aquatic ecologist and data analyst for the Interstate Commission on the Potomac River Basin and acts as co-chair of the Biological WQDE workgroup. Jerry is a Director of Tetra Tech's Baltimore Office where he directs toxicological and biological monitoring projects for a variety of sponsors. He has been providing EPA contract support to the Methods Board for the past 8 years.

Abstract

Many entities collect water-quality data. Often data are stored in databases that provide data access to other entities. However, aquatic research is often hampered by data that exist in varied forms and cannot easily be compared. It is important that these databases include sufficient information about the data ("metadata") so that non-collecting data users can assess the comparability of data from diverse sources. Metadata includes information about **Who** collected and analyzed the data, **What** data were collected, and **Where, When, Why,** and **How** data were collected and analyzed. The Methods and Data Comparability Board and The National Water-Quality Monitoring Council have prepared a list of what we believe to be the minimum necessary, or "core metadata", to allow comparability assessments of chemical and microbiological data. The list proposed is not a set of required information; rather, it is intended as a means to help data collectors more easily consider the most important water-quality data elements needed to assess data comparability. The list has been developed in conjunction with numerous Local, State, Federal, and private sector water-quality sampling entities to assure that the use of the data elements listed are compatible with the majority of existing databases.

This session/workshop will provide an overview of the proposed chemical and microbiological water-quality data elements list and the process used to develop the list. The session/workshop will also describe several pilot studies that are being used to test the feasibility of applying the data elements in actual water quality projects. A draft framework will be described for developing and integrating additional minimum data element lists for various biological data types (biological assessments, tissue contaminants, and toxicity) with the chemical and microbiological list. Draft lists for several biological components will be distributed, and attendees will break into work groups to review and comment on the draft framework and lists of biological data elements.